Remarks

Applicant has amended claims 1, 17 and 20. Applicant respectfully submits that no new matter was added by the amendment, as all of the amended matter was either previously illustrated or described in the drawings, written specification and/or claims of the present application. Entry of the amendment and favorable consideration thereof is earnestly requested.

Rejections under 35 U.S.C. § 103(a)

Claims 1, 4-5, 8-9, 11-13, 17-18 and 20-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,274,423 (Mizuno et al.) in view of U.S. Patent No. 5,715,827 (Corl et al.), U.S. Patent No. 6,159,156 (Van Bockel) and U.S. Patent No. 5,456,682 (Edwards). Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. in view of Corl et al., Van Bockel, Edwards and further in view of U.S. Patent No. 4,686,964 (Yunoki).

Claim 1 recites, at least in part, a "data carrier embedded in said recess" and an "embedding medium surrounding said data carrier and forming a body by means of which said data carrier is non-removeably held in said undercut . . . said embedding medium selected from the group consisting of: epoxy resin or other duroplastic synthetic materials, cement, ceramics and combinations thereof." Claims 17 and 20 recite similar limitations.

The examiner has submitted that Mizuno et al. teaches "an embedding medium (see 21, 22 in fig. 3 and col. 5, lines 52- col. 6, line 4), a readable data carrier (14) embedded in the recess (see fig. 3), the data carrier being non-removeably held in the undercut." (Official Action, 9/16/08, p. 2). The examiner further submits that "[h]owever, Mizuno does not disclose an embedded medium other than silicone rubber" but that

"Edwards teaches in col. 7 lines 43-51 a potting compound to encapsulate and insulate a sensor of medical probe that includes loctite material. Loctite is a ceramic material which has a higher elasticity modulus than engineering polymers." (Official Action, 9/16/08, p. 3). The examiner then concludes that "one . . . would have known to substitute the silicone rubber encapsulated material for loctite-potting compound in order to isolate the data carrier of Mizuno . . . the embedded medium would have a larger elasticity modulus than the instrument body in order to properly isolate the sensor electricaly." (Id.)

Basically, what it appears the examiner is saying is that it would be obvious to replace the rubber silicon material taught in Mizuno et al. with the loctite material taught in Edwards so as to "properly isolate the sensor." This argument, however, fails to take into consideration what the sensor in Mizuno et al. measures, namely, pressure in the environment in which it is placed. (Abstract, a "catheter tip pressure transduction for detecting the pressure in various portion of a living body . . . comprises a pressure sensor disposed within the end portion of a catheter.") Mizuno et al. teaches use of a "pressure-sensitive diaphragm 15, which is thin and subject to deflection when a differential pressure exists between its planar surfaces." (Col. 4, lns. 20-23). It does this by "providing an opening 13a to the underside of the diaphragm 15 as seen in FIG. 3" where a "reference pressure is introduced to the underside of the diaphragm 15 through the through-hole 11c." (Col. 5, lns. 15-18). As such, the sensor of Mizuno et al. measures the ambient pressure by measuring the deformation of diaphragm 15 (e.g. the diaphragm will deform in accordance with the differential pressure across the diaphragm, the ambient pressure versus the reference pressure below the diaphragm). This means that it is critical that the diaphragm be free to move. To that end, Mizuno et al. teaches that the pressure sensor is "located at a predetermined position by extremely soft silicone rubber 21" and that in "addition to the usage of silicone rubber, any other elastic material may be used." (Col. 5, lns. 54-55 & 59-60). Still further, Mizuno et al. teaches that "protecting member 22 which is made of silicon rubber" and that "[t]his protecting

member 22 also is resiliently elastic." (Col. 5, lns. 68 – Col. 6, ln. 2). Therefore, the examiner is correct that the only material disclosed in Mizuno et al. is silicon rubber, however, it cannot be obvious to replace the silicon rubber with loctite (material with high elasticity modulus). To do this would render the pressure sensor taught in Mizuno et al. inoperable (e.g. Mizuno et al. teaches that the protecting member *must* be elastic.) It is well settled that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. MPEP 2143.01; *In re Gordon*, 733 F.2d 900, 221 USPQ2d 1125 (Fed. Cir. 1984). In the present case, Applicant respectfully submits that to encapsulate the pressure sensor taught in Mizuno et al. with the hard potting material taught in Edwards would render the pressure sensor inoperable. Accordingly, such a modification cannot properly be termed obvious.

Applicant has further amended claims 1, 17 and 20 to recite an embedding medium inserted into said recess and surrounding the data carrier. Again, such a configuration would work contrary to the function and operation of Mizuno et al. in which it is critical that an area below the diaphragm not have the embedding mater to as to have a reference pressure applied thereto.

Accordingly, in the presently claimed invention, while it is desirable to embed the data carrier in an embedding medium selected from the group consisting of: epoxy resin or other duroplastic synthetic materials, cement, ceramics and combinations thereof, doing so with the pressure sensor taught in Mizuno et al. would render the device completely inoperable.

It is respectfully submitted that claims 1, 4-5, 7-13, 15, 17-18 and 20-21, all of the claims remaining in the application, are in order for allowance and early notice to that effect is respectfully requested.

Respectfully submitted,

/Wesley W. Whitmyer, Jr./

November 2, 2009

Wesley W. Whitmyer, Jr., Registration No. 33,558
Todd M. Oberdick, Registration No. 44,268
Attorneys for Applicant
ST. ONGE STEWARD JOHNSTON & REENS LLC
986 Bedford Street
Stamford, CT 06905-5619
Tel. 203 324-6155